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SAP for Place Bridge Elementary School

EPA REGION 8 QA DOCUMENT REVIEW CROSSWALK

QAPP/F	SP/SAP for:	Entity (grantee, contract, EPA AO, EPA Program, Other)	Regulatory	2 CFR 1500 for Grantee/Cooperative
(check a	ppropriate box)		Authority	Agreements
	GRANTEE	Weston Solutions, Inc.		_X_ 48 CFR 46 for Contracts
X	CONTRACTOR		and/or	Interagency Agreement (FFA, USGS)
	EPA			EPA/Court Order
			Funding	EPA Program Funding
	Other		Mechanism	EPA Program Regulation
				EPA CIO 2105
Docume	nt Title	SAP for Place Bridge Elementary School		
[Note: T	itle will be repeated in			
Header]				
QAPP/F	SP/SAP Preparer	Roy Weindorf		
Period o	f Performance	1 year from date of EPA approval of Task Level QAPP (Last	Date Submitted	6/28/2018
(of QAP)	P/FSP/SAP)	QAPP Revision Feb 2015)	for Review	
EPA Pro	oject Officer	Joyce Ackerman	PO Phone #	303-312-6822
EPA Pro	oject Manager	Tim Rehder	PM Phone #	303-312-6293
QA Pro	gram Reviewer or	Tim Rehder	Date of Review	
Approvi	ing Official			

Documents Submitted for QAPP Review (QA Reviewer must complete):

1. QA Document(s) submitted for review:

QA Document	Document Date	Document Stand- alone	Document with QAPP
QAPP		Yes / No	
FSP		Yes / No	Yes / No
SAP	6/28/18	Yes / No	Yes / No
SOP(s)			Yes / No

2. WP/SOW/TO/PP/R	P Date
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WP/SOW/TO/RP Performance Period _____

3. QA document consistent with the:

WP/SOW/PP for grants? Yes / No SOW/TO for contracts? Yes / No

4. QARF signed by R8 QAM Yes / No / NA

Funding Mechanism IA / contract / grant / NA

Amount	

Notes for Document Submittals:

1. A QAPP written by a Grantee, EPA, or Federal Partner <u>must include</u> for review:

 $Work\ Plan(WP)\ /\ Statement\ of\ Work\ (SOW)\ /\ Program\ Plan\ (PP)\ /\ Research\ Proposal\ (RP)\ and\ funding\ mechanism$

- **2.** A QAPP written by Contractor <u>must include</u> for review:
 - a) Copy of Task Order Work Assignment/SOW
 - b) Reference to a hard or electronic copy of the contractor's approved QMP
 - c) Copy of Contract SOW if no QMP has been approved
 - d) Copy of EPA/Court Order, if applicable
 - e) The QA Review must determine (with the EPA CO or PO) if a QARF was completed for the environmental data activity described in the QAPP.
- 3. a. Field Sampling Plan (FSP) and/or Sampling & Analyses Plan (SAP) must include the Project QAPP <u>or must</u> be a stand-alone QA document that <u>contain all QAPP required elements</u> (Project Management, Data Generation/Acquisition, Assessment and Oversight, and Data Validation and Usability).
- b. SOPs must be submitted with a OA document that contains all OAPP required elements.

Summary of Comments (highlight significant concerns/issues):

- 1. Comment #1
- 2. Comment #2
- 3. Comment #3
- 4. Weston Solutions, Inc. must address the comments in the Summary of Comments, as well as those identified in the Comment section(s) that includes a "Response (date)" and Resolved (date)".

AP for Place Bridge Elementary School	Accept	Page/	Comments
Element	able	Section	
	Yes/No/	20000	
	NA		
A. Project Management	-		
A1. Title and Approval Sheet			
a. Contains project title	Yes	SAP Title Page and Introduction SAP Section A1.	
b. Date and revision number line (for when needed)	Yes	SAP Section A1	
c. Indicates organization=s name	Yes	SAP Title Page	
d. Date and signature line for organization=s project manager	Yes	SAP Section A1 QAPP Worksheets 1,2 4,7 & 8	
e. Date and signature line for organization=s QA manager	Yes	QAPP Worksheets 1& 2	
f. Other date and signatures lines, as needed	Yes	SAP Section A1 QAPP Worksheets 4,7 & 8	
A2. Table of Contents	•	-	
a. Lists QA Project Plan information sections	Yes	SAP Table of Contents, SAP List of Appendices	
b. Document control information indicated	Yes	SAP Section A1 QAPP Worksheet 1 & 2	
A3. Distribution List			
Includes all individuals who are to receive a copy of the QA Project	Yes	SAP Section A3	
Plan and identifies their organization		QAPP Worksheet 3 & 5	
A4. Project/Task Organization			
a. Identifies key individuals involved in all major aspects of the project, including contractors	Yes	QAPP Worksheet 3 & 5	
b. Discusses their responsibilities	Yes	QAPP Worksheet 4, 7 & 8	
c. Project QA Manager position indicates independence from unit generating data	Yes	QAPP Worksheet 3 & 5	
d. Identifies individual responsible for maintaining the official, approved QA Project Plan	Yes	SAP Section A1 QAPP Worksheet 4, 7 & 8	
e. Organizational chart shows lines of authority and reporting responsibilities	Yes	QAPP Worksheet 3 & 5	
A5. Problem Definition/Background	•	•	
a. States decision(s) to be made, actions to be taken, or outcomes expected from the information to be obtained	Yes	SAP Section A5 QAPP Worksheet 9	
b. Clearly explains the reason (site background or historical context) for initiating this project	Yes	SAP Worksheet 10	
c. Identifies regulatory information, applicable criteria, action limits, etc. necessary to the project	Yes	SAP Section A5 and Worksheet 15	
A6. Project/Task Description	1	I .	

a. Summarizes work to be performed, for example, measurements to be made, data files to be obtained, etc., that support the project—s goals b. Provides work schedule indicating critical project points, e.g., start and completion dates for activities such as sampling, analysis, data or file reviews, and assessments c. Deating geographical locations to be studied, including maps where possible d. Discusses resource and time constraints, if applicable 7es A7. Quality Objectives and Criteria a. Identifies - performance/measurement criteria for all information to be collected and acceptance criteria for information obtained from previous studies, - including project action limits and laboratory detection limits and and complete seek parameter of interest b. Discusses precision c. Addresses bias d. Discusses representativeness ves d. Discusses representativeness yes d. Discusses precision ves f. Describes the need for comparability yes g. Discusses desired method sensitivy A8. Special Training/Certifications allentifies any project personnel specialized training or curifications a. Identifies sup project personnel specialized training or curifications a. Identifies where project information is documented A9. Documentation and Records a. Identifies where project information is documented Yes QAPP Worksheet 37 QAPP Worksheet 4, 7 & 8 QAPP Worksheet 29 QAPP Workshee	SAP for Place Bridge Elementary School			
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g. Discusses desired method sensitivity A8. Special Training/Certifications a. Identifies any project personnel specialized training or certifications b. Discusses how this training will be provided c. Indicates personnel responsible for assuring training/certifications are satisfied d. identifies where this information is documented A9. Documentation and Records a. Identifies report format and summarizes all data report package information b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identificing the	e. Identifies the need for completeness	Yes	QAPP Worksheet 37	
A8. Special Training/Certifications a. Identifies any project personnel specialized training or certifications b. Discusses how this training will be provided c. Indicates personnel responsible for assuring training/certifications are satisfied d. identifies where this information is documented A9. Documentation and Records a. Identifies report format and summarizes all data report package information b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current conv of the approved OA Project Plan identifying the	f. Describes the need for comparability	Yes	QAPP Worksheet 37	
a. Identifies any project personnel specialized training or certifications b. Discusses how this training will be provided c. Indicates personnel responsible for assuring training/certifications are satisfied d. identifies where this information is documented Yes QAPP Worksheet 4, 7 & 8 QAPP Worksheet 4, 7 & 8 QAPP Worksheet 4, 7 & 8 A9. Documentation and Records a. Identifies report format and summarizes all data report package information b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current conv of the approved OA Project Plan identifying the	g. Discusses desired method sensitivity	Yes	QAPP Worksheet 37	
certifications Description of the approved OA Project Plan identifying the QAPP Worksheet 4, 7 & 8 Description of the approved OA Project Plan identifying the QAPP Worksheet 4, 7 & 8 QAPP Worksheet 14 & 16 QAPP Worksheet 14 & 16 QAPP Worksheet 19 QAPP Worksheet 29 SAP Worksheet 14 & 16 QAPP Worksheet 29	A8. Special Training/Certifications			
certifications Description of the approved OA Project Plan identifying the expert of the approved OA Project Plan identifying the expert of the approved OA Project Plan identifying the expert of the approved OA Project Plan identifying the expert of the approved OA Project Plan identifying the expert of the approved OA Project Plan identifying the expert of the supervised of the approved OA Project Plan identifying the expert of the supervised of the superv	a. Identifies any project personnel specialized training or	Yes	SAP Section A4	
c. Indicates personnel responsible for assuring training/certifications are satisfied d. identifies where this information is documented Yes QAPP Worksheet 4, 7 & 8 A9. Documentation and Records a. Identifies report format and summarizes all data report package information b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identificing the			QAPP Worksheet 4, 7 & 8	
are satisfied d. identifies where this information is documented Yes QAPP Worksheet 4, 7 & 8 A9. Documentation and Records a. Identifies report format and summarizes all data report package information b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current conv of the approved OA Project Plan identifying the	b. Discusses how this training will be provided	Yes	QAPP Worksheet 4, 7 & 8	
d. identifies where this information is documented A9. Documentation and Records a. Identifies report format and summarizes all data report package information b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	c. Indicates personnel responsible for assuring training/certifications	Yes	QAPP Worksheet 4, 7 & 8	
A9. Documentation and Records a. Identifies report format and summarizes all data report package information b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	are satisfied			
a. Identifies report format and summarizes all data report package information b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	d. identifies where this information is documented	Yes	QAPP Worksheet 4, 7 & 8	
information QAPP Worksheet 29 b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	A9. Documentation and Records			
b. Lists all other project documents, records, and electronic files that will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	a. Identifies report format and summarizes all data report package	Yes	SAP Worksheet 14 & 16	
will be produced c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	information		QAPP Worksheet 29	
c. Identifies where project information should be kept and for how long d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	b. Lists all other project documents, records, and electronic files that	Yes	CAD Workshoot 14 % 16	
d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	will be produced		SAP Worksheet 14 & 16	
d. Discusses back up plans for records stored electronically e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	c. Identifies where project information should be kept and for how	Yes	OADD Workshoot 20	
e. States how individuals identified in A3 will receive the most current copy of the approved OA Project Plan identifying the	long		QAFF WORKSHEET 29	
current copy of the approved OA Project Plan, identifying the		Yes		
current conv. of the approved () A. Project Plan identifying the	e. States how individuals identified in A3 will receive the most	Yes	SAD Introduction	
	current copy of the approved QA Project Plan, identifying the		QAPP Worksheet 4 & 5	
individual responsible for this	individual responsible for this		QALL WOLKSHEEL 4 & 3	
B. Data Generation/Acquisition				
B1. Sampling Process Design (Experimental Design)	B1. Sampling Process Design (Experimental Design)			

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a. Describes and justifies design strategy, indicating size of the area,	Yes	SAP Section B1.	
volume, or time period to be represented by a sample		SAP Table 1	
b. Details the type and total number of sample types/matrix or test	Yes	SAP Section B1.	
runs/trials expected and needed		SAP Table 1	
c. Indicates where samples should be taken, how sites will be	Yes	SAP Section B1.	
identified/located		SAP Table 1	
d. Discusses what to do if sampling sites become inaccessible	Yes	SAP Section B1.	
e. Identifies project activity schedules such as each sampling event,	Yes	SAP Worksheet 14 & 16	
times samples should be sent to the laboratory, etc.		SAP Table 1	
f. Specifies what information is critical and what is for informational	Yes	SAP Section B1.	
purposes only		SAF Section B1.	
g. Identifies sources of variability and how this variability should be	Yes	SAP Worksheets 17	
reconciled with project information		SAF WORKSHEETS 17	
B2. Sampling Methods			
a. Identifies all sampling SOPs by number, date, and regulatory	Yes	SAP Section B2.	
citation, indicating sampling options or modifications to be taken		QAPP Worksheet 21	
b. Indicates how each sample/matrix type should be collected	Yes	SAP Section B2. and SAP Table 1	
		QAPP Worksheet 19 & 30	
c. If in situ monitoring, indicates how instruments should be deployed	Yes		
and operated to avoid contamination and ensure maintenance of		QAPP Worksheet 22	
proper data			
d. If continuous monitoring, indicates averaging time and how	Yes	QAPP Worksheet 22	
instruments should store and maintain raw data, or data averages		Q/H 1 WORKSHEET 22	
e. Indicates how samples are to be homogenized, composited, split, or	Yes	SAP Section B2.	
filtered, if needed			
f. Indicates what sample containers and sample volumes should be	Yes	SAP Section B2. and SAP Table 1	
used		QAPP Worksheet 19 & 30	
g. Identifies whether samples should be preserved and indicates	Yes	SAP Section B2. and SAP Table 1	
methods that should be followed		QAPP Worksheet 19 & 30	
h. Indicates whether sampling equipment and samplers should be	Yes		
cleaned and/or decontaminated, identifying how this should be done		QAPP Worksheet 21	
and by-products disposed of			
i. Identifies any equipment and support facilities needed	Yes	SAP Worksheet 22	
j. Addresses actions to be taken when problems occur, identifying	Yes		
individual(s) responsible for corrective action and how this should be		SAP Worksheet 31, 32 & 33	
documented			
B3. Sample Handling and Custody		,	
a. States maximum holding times allowed from sample collection to	Yes		
extraction and/or analysis for each sample type and, for in-situ or		SAP Table 1	
continuous monitoring, the maximum time before retrieval of		QAPP Worksheet 19 & 30	
information			

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b. Identifies how samples or information should be physically	Yes	SAP Table 1	
handled, transported, and then received and held in the laboratory or office (including temperature upon receipt)		SAP Worksheet 26 & 27	
c. Indicates how sample or information handling and custody	Yes		
information should be documented, such as in field notebooks and		SAP Section B3. SAP Worksheets 26 & 27	
forms, identifying individual responsible		SAP Worksheets 20 & 27	
d. Discusses system for identifying samples, for example, numbering	Yes	SAP Worksheet 26 & 27	
system, sample tags and labels, and attaches forms to the plan		STIL WORKSHEEL 20 & 27	
e. Identifies chain-of-custody procedures and includes form to track	Yes	SAP Worksheet 26 & 27	
custody			
B4. Analytical Methods	1		
a. Identifies all analytical SOPs (field, laboratory and/or office) that	Yes		
should be followed by number, date, and regulatory citation,		SAP Section B2.	
indicating options or modifications to be taken, such as sub-sampling		QAPP Worksheet 23	
and extraction procedures	37	CARRIE 1 1 22 24	
b. Identifies equipment or instrumentation needed	Yes	QAPP Worksheets 23, 24	
c. Specifies any specific method performance criteria	Yes	QAPP Worksheets 23, 24	
d. Identifies procedures to follow when failures occur, identifying	Yes		
individual responsible for corrective action and appropriate		QAPP Worksheet 22, 24	
documentation			
e. Identifies sample disposal procedures	Yes	SAP Worksheet 26 & 27	
		QAPP Appendix I	
f. Specifies laboratory turnaround times needed	Yes	QAPP Worksheet 19 & 30	
g. Provides method validation information and SOPs for nonstandard	Yes	QAPP Worksheets 23, 25 & 28	
methods			
B5. Quality Control	Τ		
a. For each type of sampling, analysis, or measurement technique,	Yes	GARG : DS	
identifies QC activities which should be used, for example, blanks,		SAP Section B5.	
spikes, duplicates, etc., and at what frequency			
b. Details what should be done when control limits are exceeded, and	Yes	SAP Worksheets 25, 26 & 27	
how effectiveness of control actions will be determined and		QAPP Worksheet 28	
documented	37	+	
c. Identifies procedures and formulas for calculating applicable QC	Yes	SAP Worksheet 37	
statistics, for example, for precision, bias, outliers and missing data			
B6. Instrument/Equipment Testing, Inspection, and Maintenance	1 37		
a. Identifies field and laboratory equipment needing periodic	Yes	SAP Worksheets 22, 24, and 25	
maintenance, and the schedule for this	V-		
b. Identifies testing criteria	Yes	SAP Worksheets 22, 24, and 25	
c. Notes availability and location of spare parts	Yes	SAP Worksheets 22, 24, and 25	
d. Indicates procedures in place for inspecting equipment before usage	Yes	SAP Worksheets 22, 24, and 25	
e. Identifies individual(s) responsible for testing, inspection and	Yes	SAP Worksheets 22, 24, and 25	
maintenance			

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f. Indicates how deficiencies found should be resolved, re-inspections	Yes	GARWALL AND DA	
performed, and effectiveness of corrective action determined and		SAP Worksheets 22, 24	
documented			
B7. Instrument/Equipment Calibration and Frequency	1		
a. Identifies equipment, tools, and instruments that should be	Yes	SAP Worksheets 22 and 24	
calibrated and the frequency for this calibration			
b. Describes how calibrations should be performed and documented,	Yes	SAP Worksheet 22, 26 & 27	
indicating test criteria and standards or certified equipment		,	
c. Identifies how deficiencies should be resolved and documented	Yes	SAP Worksheet 22, 26 & 27	
	Yes	SAP Attachment B	
a. Identifies critical supplies and consumables for field and		SAP Attachment D	
laboratory, noting supply source, acceptance criteria, and procedures		SAP Worksheets 22, 26 & 27	
for tracking, storing and retrieving these materials		57 H W 07R5Heets 22, 20 & 27	
b. Identifies the individual(s) responsible for this	Yes	SAP Attachment B	
		SAP Attachment D	
		SAP Worksheets 22, 26 & 27	
B9. Use of Existing Data (Non-direct Measurements)	_		
a. Identifies data sources, for example, computer databases or	Yes	SAP Worksheet 13	
literature files, or models that should be accessed and used		SAF WOLKSHEET 13	
b. Describes the intended use of this information and the rationale for	Yes	SAP Worksheet 13	
their selection, i.e., its relevance to project		SAF WOLKSHEET 13	
c. Indicates the acceptance criteria for these data sources and/or	Yes	SAP Worksheet 13	
models		SAF WOLKSHEET 13	
d. Identifies key resources/support facilities needed	Yes	SAP Worksheet 13	
e. Describes how limits to validity and operating conditions should be	Yes		
determined, for example, internal checks of the program and Beta		SAP Worksheet 13	
testing			
B10. Data Management	•		
a. Describes data management scheme from field to final use and	Yes	SAP Worksheets 26 & 27, 29, and	
storage		35	
b. Discusses standard record-keeping and tracking practices, and the	Yes	GAD G: D10	
document control system or cites other written documentation such as		SAP Workshoots 26 % 27 20	
SOPs		SAP Worksheets 26 & 27, 29	
c. Identifies data handling equipment/procedures that should be used	Yes	SAP Section B10.	
to process, compile, analyze, and transmit data reliably and accurately		SAP Worksheets 22 and 29	
		QAPP Worksheet 23	
d. Identifies individual(s) responsible for this	Yes	SAP Worksheet 29	
e. Describes the process for data archival and retrieval	Yes	SAP Worksheet 29	
f. Describes procedures to demonstrate acceptability of hardware and	Yes	SAP Worksheet 22	
software configurations		QAPP Worksheet 23	
g. Attaches checklists and forms that should be used	Yes	SAP Section B10.	
C. Assessment and Oversight	•		
C1. Assessments and Response Actions			

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SAP for Place Bridge Elementary School		
a. Lists the number, frequency, and type of assessment activities that should be conducted, with the approximate dates	Yes	SAP Worksheet 31, 32 & 33
b. Identifies individual(s) responsible for conducting assessments, indicating their authority to issue stop work orders, and any other possible participants in the assessment process	Yes	SAP Worksheet 31, 32 & 33
c. Describes how and to whom assessment information should be reported	Yes	SAP Worksheet 31, 32 & 33
d. Identifies how corrective actions should be addressed and by whom, and how they should be verified and documented	Yes	SAP Worksheet 31, 32 & 33
C2. Reports to Management	•	<u> </u>
a. Identifies what project QA status reports are needed and how frequently	Yes	SAP Worksheet 31, 32 & 33
b. Identifies who should write these reports and who should receive this information	Yes	SAP Worksheet 31, 32 & 33
D. Data Validation and Usability		
D1. Data Review, Verification, and Validation		
Describes criteria that should be used for accepting, rejecting, or qualifying project data	Yes	SAP Worksheet 36
D2. Verification and Validation Methods		<u> </u>
 a. Describes process for data verification and validation, providing SOPs and indicating what data validation software should be used, if any 	Yes	QAPP Worksheet 34 SAP Worksheets 35 and 36
b. Identifies who is responsible for verifying and validating different components of the project data/information, for example, chain-of-custody forms, receipt logs, calibration information, etc.	Yes	SAP Worksheet 35
c. Identifies issue resolution process, and method and individual responsible for conveying these results to data users	Yes	SAP Worksheets 35 and 36
d. Attaches checklists, forms, and calculations	Yes	QAPP Worksheet 34 SAP Worksheet 37 QAPP Appendix O, P, Q, R
D3. Reconciliation with User Requirements	-	<u> </u>
a. Describes procedures to evaluate the uncertainty of the validated data	Yes	SAP Worksheets 12 and 37 QAPP Appendix J
b. Describes how limitations on data use should be reported to the data users	Yes	SAP Worksheet 37